Approved by OMB[1]
No. 3150-0183
Expires 08/31/2010

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM QUESTIONNAIRE

State of Tennessee
Reporting Period: February 26, 2004, to April 25, 2008

Updated April 18, 2008

Note: If there has been no change in the response to a specific question since the last IMPEP questionnaire, the State or Region may copy the previous answer, if appropriate.

A. GENERAL

1. Please prepare a summary of the status of the State's or Region's actions taken in response to the comments and recommendations following the last review.

Recommendation:

1. The review team recommends that the Division promptly adopt the current version of 10 CFR 20.2003. (Section 4.1.2.)
Answer: The Division adopted the current version of 10 CFR 20.2003 in July, 2006.

Recommendation:

2. The review team recommends that the Division acquire or provide a mechanism for staff to have access to expertise commensurate with the complexity of SS&D casework. (Section 4.2.2.)
Answer: A procedure was established and outlined in a letter dated July 14, 2004 from the Division to the USNRC. Since the last IMPEP review in 2004, the Division has been able to internally resolve questions that have arisen as a result of SS&D reviews. We did seek technical assistance from the NRC concerning a device in 2004.

Recommendation:

3. The review team recommends that the Division prepare registration certificates consistent with the current version of NUREG-1556, Volume 3. (Section 4.2.2.)
Answer: The Division has reviewed the recommendations applicable to sealed source and device review from the last IMPEP review and has attempted to incorporate these recommendations in its preparation of registration certificates such that they are consistent with NUREG-1556, Vol.3.

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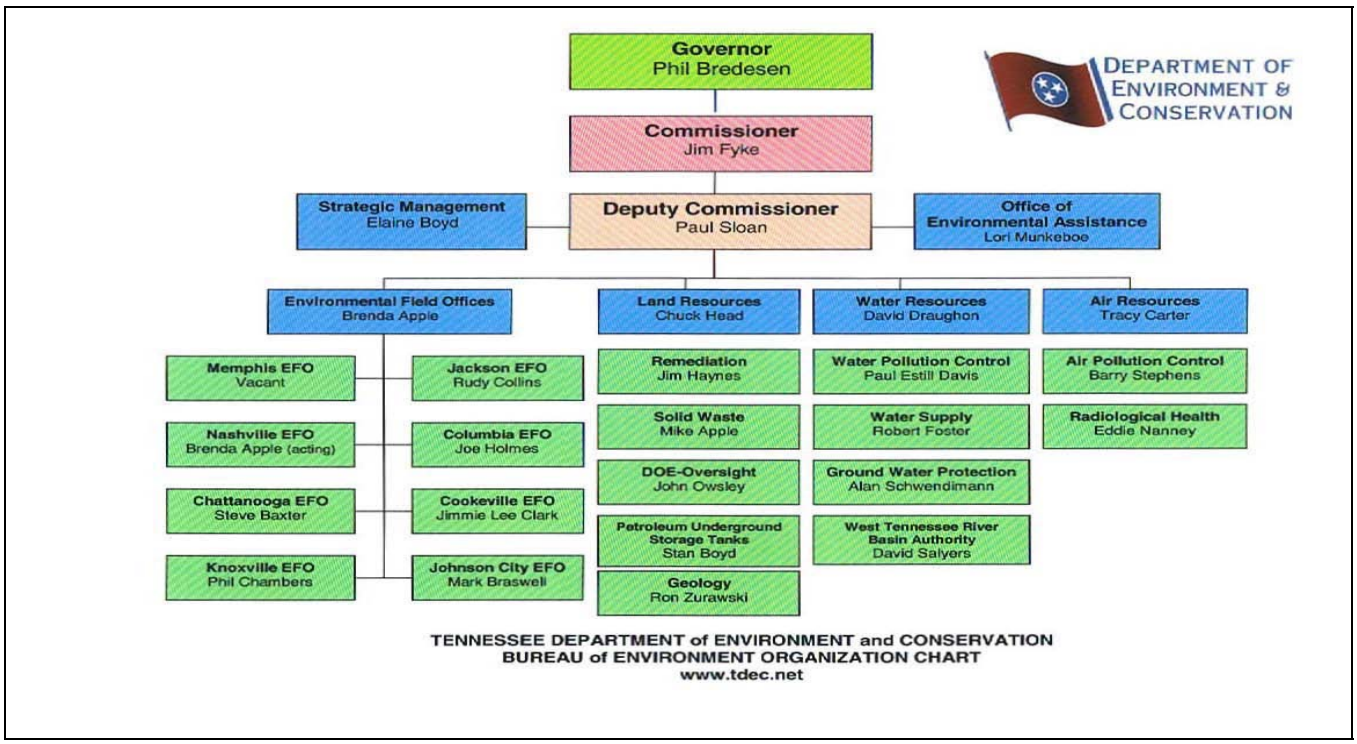
[1] Estimated burden per response to comply with this voluntary collection request: 53 hours. Forward comments regarding burden estimate to the Records Management Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0183), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

B. COMMON PERFORMANCE INDICATORS

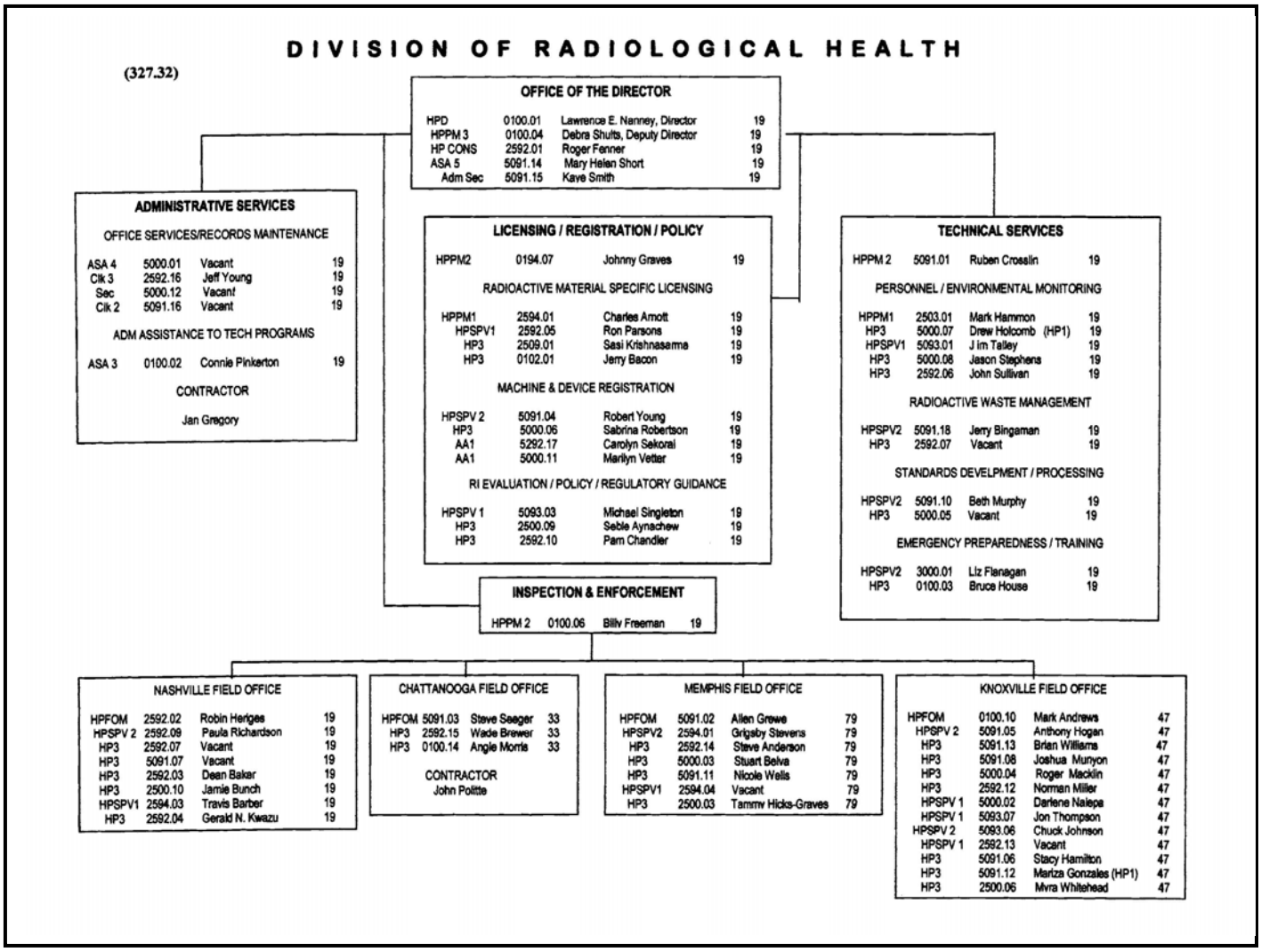
I. Technical Staffing and Training

2. Please provide the following organization charts, including names and positions:

(a) A chart showing positions from Governors down to Radiation Control Program Director;



(b) A chart showing positions of current radiation control program including management; and



(c) Equivalent charts for sealed source and device evaluation, low-level radioactive waste and uranium recovery programs, if applicable.

See #32

3. Please provide a staffing plan, or complete a listing using the suggested format below, of the professional (technical) full-time equivalents (FTE) applied to the radioactive materials program by individual. Include the name, position, and, for Agreement States, the fraction of time spent in the following areas: administration, materials licensing & compliance, emergency response, low-level radioactive waste, uranium recovery, other. If these regulatory responsibilities are divided between offices, the table should be consolidated to include all personnel contributing to the radioactive materials program. Include all vacancies and identify all senior personnel assigned to monitor work of junior personnel. If consultants were used to carry out the program's radioactive materials responsibilities, include their efforts. The table heading should be:

Name **Position** **Area of Effort** **FTE%**

Name	**Position Classification #**	**Area of Effort (based on 49 months)**							**FTE**
		Adm	Lic	Comp	Emerg Resp	LLW	U-Mills NA	Other	
L. Nanney*	Dir 0100.01	45			10				**55.0**
D. Shults*	DepDir 0100.04	45			10			N-Med 15	**70.0**
J. Graves*	HP PM2 0100.07		40		10			SS&D 5	**55.0**
C. Arnott*	HP PM1 2500.01		85		5			SS&D 10	**100.0**
R. Parsons*	HPSpv 1 2592.05		90					SS&D 10	**100.0**
G. Bacon	HP 3 0102.01		90					SS&D 10	**100.0**
S. Krishnasarma	HP 3 2509.01		100						**100.0**
S. Szendy – 2 mo R. Fenner – 40 mo	HP Cons 2592.01 50% lic		2 40					ATG D&D 25	**67.0**
M. Singleton*	HPSpv 1 5093.03		26.2					Policy/Pl n 26.2	**52.4**
R. Young*	HP Spv2 5091.04		20						**20.0**
S. Robertson - 46 mo	HP3 5000.06							47 GL	**47.0**
R. Perry* –13 mo R. Heriges*-33 mo	HPFOM N'ville 2592.02			47	9				**56.0**
P. Richardson*	HP Spv2 2592.09			10					**10.0**
T. Barber* – 48 mo	HP Spv 1 2594.03			48.9	9.7				**58.6**
G. Kwazu	HP3 2592.04			100					**100.0**

S. Belva—12 mo	HP3 M 5000.03			25					
J. Politte* – 24 mo ** S. Seeger* – 25 mo	HP FOM Chat 5091.03			50	10				**60.0**
S. Seeger* –24 mo	HP 3 0100.14			24.5	4.9				**29.4**
A. Grewe*	HP FOM Memph 5091.02			50	10				**60.0**
G. Stevens*	HP Spv 2 2594.01			65	10				**75.0**
J. Garland* –15 mo	HP Spv1 *2594.04			5.2					**5.2**
Steve Anderson—1 week Will be 50%	HP3			None yet					
Tammy Hicks-Graves—1 week—will be 25%	HP3			None yet					
B. Freeman*	HP PM 2 0100.06			50	10				**60.0**
M. Andrews*	HP FOM Knox 0100.10			50	10				**60.0**
C. Johnson* - 23 mo	HP Spv 2 5093.06			10	10				**20.0**
J. Thompson	HP Spv 1 5093.07			60	10				**70.0**
R. Macklin	HP 3 5000.04			90	10				**100.0**
S. Hamilton	HP3 (HP1) 5091.06			50					**50**
K. Gilliam - 33 mo - - - - - - - - - - - - - - Myra Whitehead 15 mo	HP3 5091.12 2500.06			49					**49.0**
N. Foutch —-16 mo B. Williams —-30 mo	HP3 5091.13			56.3					**56.3**
S. Drake* –29 mo A. Hogan* – 9 mo	HPSpv2 5091.05			77	7.7				**84.7**
M. Smith —-16 mo J. Munyon —-30 mo	HP3 5091.08			56.3					**56.3**
C. Millsaps –17 mo N. Miller –10 mo	HP3 5092.12			55					**55.0**
R. Crosslin*	HP PM 2				10				**10.0**
J. Talley*	HP Spv 1				10				**10.0**
B. Murphy*-36 mo B. Davis*-10 mo	HP Spv 2 5091.10							Regs 37.5	**37.5**
M. Hammon*	HPPM1 2503.01				10				**10.0**
R. Fenner* –9 mo J. Bingaman –10 mo	HP spv 2 5091.18				3.9	34.8			**38.7**

J. Politte—Contractor—31% of available time worked				31					**31.0**
Sub-total		**90**	**493.2**	**1035.2**	**180.2**	**34.8**		**185.7**	**2019.1**
Vacant Positions assigned to the radioactive materials programs									
Not currently pursuing*	HP Spv1 M 2594.04			50	10				**60.0**
Not currently pursuing*	HP SPV1 K 2592.13			50	10				**60.0**
Not currently pursuing	HP3 N 2591.07			25					**25.0**
Not currently pursuing	HP3 N-CO 2592.07					25			**25.0**
Not currently pursuing	HP3 N-CO 5000.05							Regs 25	**25.0**
Sub-total Vacant Pos				125	20	25		25	**195.0**
TOTAL		**90**	**493.2**	**1160.2**	**200.2**	**59.8**		**210.7**	**2214.1**

*Senior Personnel assigned currently to monitor agreement materials work of junior personnel; Note: These senior personnel also write licenses/perform inspections

4. Please provide a listing of all new professional personnel hired since the last review, indicate the degree(s) they received, if applicable, and additional training and years of experience in health physics, or other disciplines, as appropriate.

New DRH Staff since 2/26/04		
Sabrina Robertson HP3	B.A. Biology M.A. Biology	Fisk University Fisk University
Travis Barber HPSPV1	B.S. Biology	David Lipscomb University HP3, TN Division of Radiological Health, 6 years
Bryan Williams HP3	B.S. Physics Math	University of Memphis - Magna Cum Laude
Anthony Hogan HP3	B.S. Biology M.P.H Public Health	East TN State University East TN State University HP, RSO Siemens Medical 6 ½ years HP, HP Supervisor 1, HP Field office Mgr. TN Division of radiological Health, 9 years
Josh Munyon HP3	B.S. Ecology Environmen-tal Science	University of Maine
Norman Miller HP3	B.S. Physics History	Austin Peay State University Senior HP Bartlett Nuclear - 13 mo HP Spec - 2 years, 8 mo Senior HP Tech - Auxier and Associates - 5 years Senior HP Tech - Kelly Scientific - 1 year, 5 mo Senior HP Tech - Morrison Knudsen Ferguson - 3 years Environmental Specialist - TN Division of DOE Oversight - 7 years

Angelia Morris HP3	A.S. Nuclear Health Physics B.S. Environmen- tal Health	Chattanooga State tech University of Tennessee, Chattanooga HP Tech - TMA Eberline -3 years HP Tech - IT - 3 years
Mariza Gonzales HP1	B.S. Health Science	East TN State University
Drew Holcomb HP1	B.S. Biology	Belmont University
Steve Anderson HP3	Georgia Tech MSHP	TN DRH HP-6 years, HP/HP Tech with various employers RSO-ETSU-4.5 years
Tammy Hicks-Graves HP1	MTSU Biology	

5. Please list all professional staff who have not yet met the qualification requirements for a license reviewer or materials inspector. For each, list the courses or equivalent training/experience they need and a tentative schedule for completion of these requirements.
   None

6. Identify any changes to your qualification and training procedure that occurred during the review period.
   No Changes

7. Please identify the technical staff that left your program during the review period.

Staff who left DRH since 2/26/04
Sandra Szendy
Roger Perry
*John Politte (Retired, but working as a contractor,120 days per 12 month period)
John Garland
Kim Gilliam
Nathan Foutch
Shawn Drake
Marsha Smith
Chris Millsaps
Barbara Davis
Solomon Sahle

Note: 4 additional staff were hired and left during this 4 year period, but none either

brought experience or directly impacted the Radioactive Materials Programs during their brief tenures.

8. List any vacant positions in your program, the length of time each position has been vacant, and a brief summary of efforts to fill the vacancy.
See question #3.

9. For Agreement States, does your program have an oversight board or committee which provides direction to the program and is composed of licensees and/or members of the public? If so, please describe the procedures used to avoid any potential conflict of interest. **No**

II. Status of Materials Inspection Program

10. Please identify individual licensees or categories of licensees the State is inspecting less frequently than called for in NRC's Inspection Manual Chapter (IMC) 2800 and explain the reason for the difference. The list only needs to include the following information: licensee name, license number, your inspection interval, and rationale for the difference. **N/A**

11. Please provide the number of routine inspections of Priority 1, 2, and 3 licensees, as defined in IMC 2800; the number of initial inspections; and the number of increased controls inspections that were completed during the review period.

Total Priority 1, 2 & 3 Inspections	**397**
Total Initial Inspections	**161**
Total Increased Controls Inspection	**51**

12. Please submit a table, or a computer printout, that identifies inspections of Priority 1, 2, and 3 licensees, increased controls, and initial inspections that were conducted overdue per the applicable guidance. Priority 1, 2, and 3 licensees and initial inspections must be conducted at least as frequently as the inspection intervals established in IMC 2800. Increased controls inspections should be conducted at the intervals established in the Staff Requirements Memorandum for COMSECY-05-0028.

Licensee Name	Cookeville Regional Medical Center
License Number	R-71007
Priority (IMC 2800)	Initial – 02240
Last inspection date or issuance date	12/12/03
Date Due	12/12/04
Date Performed	3/9/05
Amount of Time Overdue	3 months
Date inspection findings issued	3/17/05

Licensee Name	Baptist Hospital
License Number	R-19038
Priority (IMC 2800)	Initial – 02230
Last inspection date or issuance date	12/12/05
Date Due	12/12/06
Date Performed	1/12/07
Amount of time overdue	1 month
Date inspection findings issued	1/24/07

Licensee Name	Baptist Hospital
License Number	R-19038
Priority (IMC 2800)	Initial – 02240
Last inspection date or issuance date	4/28/03
Date Due	4/28/04
Date Performed	5/2/05
Amount of time overdue	13 months
Date inspection findings issued	5/9/05

Licensee Name	Centennial Medical Center
License Number	R-19132
Priority (IMC 2800)	initial – 02240
Last inspection date (issuance date)	2/19/03
Date Due	2/19/04
Date Performed	6/16/05
Amount of Time Overdue	4 months
Date inspection findings issued	8/1/05

Licensee Name	Hendersonville Hospital
License Number	R-83006
Priority (IMC 2800)	3
Last inspection date	3/11/03
Date Due	3/11/06
Date Performed	7/11/07
Amount of Time Overdue	16 months
Date inspection findings issued	8/27/07

Licensee Name	JANX Integrity Group
License Number	R-19219
Priority (IMC 2800)	1
Last inspection date	4/2/04
Date Due	4/2/05
Date Performed	7/11/06

Amount of Time Overdue	15 months
Date inspection findings issued	7/12/06
Licensee Name	Maury Regional Hospital
License Number	R-60018
Priority (IMC 2800)	3
Last inspection date	7/31/99
Date Due	7/31/02
Date Performed	6/17/04
Amount of Time Overdue	23 months
Date inspection findings issued	6/24/04

Licensee Name	Maury Regional Hospital
License Number	R-60018
Priority (IMC2800)	Initial – 02210
Last inspection date (issuance date)	3/20/06
Date Due	3/20/07
Date Performed	6/25/07
Amount of Time Overdue	3 months
Date inspection findings issued	10/2/07

Licensee Name	Fort Sanders Regional Medical Center
License Number	R-47025
Priority (IMC 2800)	3
Last inspection date	5/1/99
Date Due	5/1/02
Date Performed	7/26/04
Amount of Time Overdue	26 months
Date inspection findings issued	8/5/04

Licensee Name	Johnson City Medical Center
License Number	R-90005
Priority (IMC 2800)	initial – 02240
Last inspection date (issuance date)	8/16/02
Date Due	8/16/03
Date Performed	8/16/04
Amount of Time Overdue	12 months
Date inspection findings issued	12/3/04

Licensee Name	Parkwest Medical Center
License Number	R-47047
Priority (IMC 2800)	3
Last inspection date	2/4/03
Date Due	2/4/06
Date Performed	8/2/07

Amount of Time Overdue	18 months
Date inspection findings issued	8/27/07
Licensee Name	St. Mary's Health System
License Number	R-47002
Priority (IMC 2800)	initial – 02240
Last inspection date (issuance date)	7/31/06
Date Due	7/31/07
Date Performed	8/29/07
Amount of Time Overdue	one month
Date inspection findings issued	10/29/07

Licensee Name	St. Mary's Health System
License Number	R-47002
Priority (IMC 2800)	3
Last inspection date	3/28/02
Date Due	3/28/05
Date Performed	8/29/07
Amount of Time Overdue	29 months
Dates inspection findings issued	10.29/07

Licensee Name	Sweetwater Hospital Association
License Number	R-62004
Priority (IMC 2800)	3
Last inspection date	8/31/99
Date Due	8/31/02
Date Performed	10/27/04
Amount of Time Overdue	26 months
Date inspection findings issued	1/25/05

Licensee Name	University of Tennessee Medical Center
License Number	R-47040
Priority (IMC 2800)	3
Last inspection date	6/26/02
Date Due	6/26/05
Date Performed	10/4/07
Amount of Time Overdue	19 months
Dates inspection findings issued	10/11/07

Licensee Name	University of Tennessee Medical Center
License Number	R-47011
Priority (IMC 2800)	initial – 02240
Last inspection date	4/10/03
Date Due	4/10/04
Date Performed	6/1/04

Amount of Time Overdue	2 months
Dates inspection findings issued	7/29/04
Licensee Name	American Industrial Testing
License Number	R-79210
Priority (IMC 2800)	1
Last inspection date	8/28/03
Date Due	8/28/04
Date Performed	11/9/05
Amount of Time Overdue	12 months
Date inspection findings issued	12/12/05

Licensee Name	Baptist Memorial Hospital
License Number	R-79032
Priority (IMC 2800)	3 – 02120
Last inspection date	7/14/93
Date Due	7/14/96
Date Performed	12/20/04
Amount of Time Overdue	92 months
Dates inspection findings issued	3/15/05

Licensee Name	Baptist Memorial Hospital
License Number	R-79032
Priority (IMC 2800)	3 – 02210
Last inspection date	7/14/93
Date Due	7/14/96
Date Performed	12/20/04
Amount of Time Overdue	92 months
Dates inspection findings issued	3/15/05

Licensee Name	Baptist Memorial Hospital
License Number	R-79032
Priority (IMC 2800)	2 – 02240
Last inspection date	7/14/93
Date Due	7/14/96
Date Performed	12/20/04
Amount of Time Overdue	107 months
Dates inspection findings issued	3/15/05

Licensee Name	Baptist Memorial Hospital
License Number	R-79032
Priority (IMC 2800)	2 – 02230
Last inspection date	7/14/93
Date Due	7/14/96
Date Performed	12/20/04

Amount of Time Overdue	107 months
Dates inspection findings issued	3/15/05
Licensee Name	Baptist Memorial Hosp-Lauderdale
License Number	R-49002
Priority (IMC 2800)	3
Last inspection date	9/11/03
Date Due	9/11/06
Date Performed	10/4/07
Amount of Time Overdue	13 months
Date inspection findings issued	11/2/07

Licensee Name	Baptist Memorial – Union City
License Number	R-66005
Priority (IMC 2800)	3
Last inspection date	8/16/00
Date Due	8/16/03
Date Performed	9/2/04
Amount of Time Overdue	13 months
Date inspection findings issued	10/15/04

Licensee Name	Cardinal Health
License Number	R-79174
Priority (IMC 2800)	2
Last inspection date	11/30/00
Date Due	11/30/02
Date Performed	9/15/05
Amount of Time Overdue	28 months
Date inspection findings issued	9/29/05

Licensee Name	Delta Medical Center
License Number	R-79099
Priority (IMC 2800)	3
Last inspection date	12/1/93
Date Due	12/1/96
Date Performed	9/8/04
Amount of Time Overdue	84 months
Date inspection findings issued	9/27/04

Licensee Name	Diagnostic Imaging PC
License Number	R-79195
Priority (IMC 2800)	3
Last inspection date	5/10/02
Date Due	5/10/05
Date Performed	6/27/07

Amount of Time Overdue	25 months
Date inspection findings issued	7/25/07
Licensee Name	Le Bonheur Children's Medical Center
License Number	R-79172
Priority (IMC 2800)	3
Last inspection date	12/5/03
Date Due	12/5/06
Date Performed	11/27/07
Amount of Time Overdue	11 months
Date inspection findings issued	12/10/07

Licensee Name	Mediphysics, Inc.
License Number	R-79249
Priority (IMC 2800)	2
Last inspection date	9/19/02
Date Due	9/19/04
Date Performed	4/24/06
Amount of Time Overdue	19 months
Date inspection findings issued	6/1/06

Licensee Name	Metal Management Memphis
License Number	R-79292
Priority (IMC 2800)	initial – Priority Code 5
Last inspection date (issuance date)	11/10/05
Date Due	11/10/06
Date Performed	2/16/07
Amount of Time Overdue	3 months
Date inspection findings issued	4/3/07

Licensee Name	Methodist Healthcare – Fayette County
License Number	R-24002
Priority (IMC 2800)	3
Last inspection date	3/24/98
Date Due	3/24/01
Date Performed	9/4/05
Amount of Time Overdue	54 months
Dates inspection findings issued	9/29/05

Licensee Name	Regional Hospital of Jackson
License Number	R-57011
Priority (IMC 2800)	3
Last inspection date	11/10/93
Date Due	11/10/96
Date Performed	8/11/05

Amount of Time Overdue	105 months
Date inspection findings issued	8/16/05
Licensee Name	Regional Hospital of Jackson
License Number	R-57011
Priority (IMC 2800)	initial – 02240
Last inspection date (issuance date	5/7/04
Date Due	5/7/05
Date Performed	8/11/05
Amount of Time Overdue	3 months
Date inspection findings issued	8/16/05

Licensee Name	St. Jude's Children's Research Hospital
License Number	R-79056
Priority (IMC 2800)	3
Last inspection date	7/31/00
Date Due	7/31/03
Date Performed	12/22/04
Amount of Time Overdue	17 months
Date inspection findings issued	1/18/05

Licensee Name	St. Francis Hospital
License Number	R-79104
Priority (IMC 2800)	3 – 02120
Last inspection date	7/21/93
Date Due	7/21/96
Date Performed	1/26/05
Amount of Time Overdue	102 months
Dates inspection findings issued	2/28/05

Licensee Name	St. Francis Hospital
License Number	R-79104
Priority (IMC 2800)	3 – 02210
Last inspection date	7/21/93
Date Due	7/21/96
Date Performed	1/26/05
Amount of Time Overdue	102 months
Dates inspection findings issued	2/28/05

Licensee Name	Sutherland Cardiology Clinic
License Number	R-79251
Priority (IMC 2800)	3
Last inspection date	11/14/02
Date Due	11/14/05
Date Performed	10/31/07

Amount of Time Overdue	23 months
Date inspection findings issued	11/16/07
Licensee Name	UT Cancer Center
License Number	R-79295
Priority (IMC 2800)	initial – 02201
Last inspection date (issuance date)	9/26/06
Date Due	9/26/07
Date Performed	11/7/07
Amount of Time Overdue	2 months
Date inspection findings issued	11/30/07

Licensee Name	UT Memphis
License Number	R-79019
Priority (IMC 2800)	3
Last inspection date	1/24/96
Date Due	1/24/99
Date Performed	11/14/07
Amount of Time Overdue	97 months
Date inspection findings issued	11/29/07

13. Please submit a table or computer printout that identifies any Priority 1, 2, and 3 licensees, increased controls, and initial inspections that are currently overdue, per the applicable guidance. At a minimum, the list should include the same information for each overdue inspection provided for Question 12 plus your action plan for completing the inspection.

Licensee Name	JANX Integrity Group
License Number	R-19219
Priority (IMC 2800)	1
Last inspection date	7/11/06
Date Due	7/11/07
Amount of Time Overdue	9 months

Licensee Name	Professional Service Industries, Inc.
License Number	R-19014
Priority (IMC 2800)	1 – temporary job site
Last inspection date	9/8/04
Date Due	9/8/05
Amount of Time Overdue	31 months

Licensee Name	Baptist Hospital
License Number	R-19038
Priority (IMC 2800)	Initial – 02240
Last inspection date or issuance date	11/15/04 (no procedure performed as of 5/2/05)

Date Due	5/2/06
Amount of Time Overdue	23 months
Licensee Name	Centennial Medical Center
License Number	R-19111
Priority (IMC 2800)	Initial – 02240
Last inspection date (issuance date)	7/1/05
Date Due	7/1/06
Amount of Time Overdue	16 months

Licensee Name	Centennial Medical Center
License Number	R-19112
Priority (IMC 2800)	3 – 02120
Last inspection date (issuance date)	4/2/03
Date Due	4/2/06
Amount of time overdue	12 months

Licensee Name	Centennial Medical Center
License Number	R-19132
Priority (IMC 2800)	2 – 02230
Last inspection date	1/2/03
Date Due	1/2/05
Amount of time overdue	51 months

Licensee Name	Professional Services Industries
License Number	R-19248
Priority (IMC 2800)	1 – temporary job site
Last inspection date	10/24/03
Date due	10/24/04
Amount of time overdue	39 months

Licensee Name	World Testing
Licensee Number	R-95009
Priority (IMC 2800)	1 – temporary job site
Last inspection date	10/14/03
Date due	10/14/04
Amount of time overdue	39 months

Licensee Name	Baptist Memorial Hospital
License Number	R-79032
Priority (IMC 2800)	2 – 02230
Last inspection date	12/20/04
Date Due	12/20/06
Amount of Time Overdue	3 months

Licensee Name	Baptist Memorial Hospital
License Number	R-79032
Priority (IMC 2800)	2 – 02240
Last inspection date	12/20/04
Date Due	12/20/06
Amount of Time Overdue	3 months

Licensee Name	Cardinal Health
License Number	R-79174
Priority (IMC 2800)	2
Last inspection date	9/15/05
Date Due	9/15/07
Amount of Time Overdue	7 months

Licensee Name	Cardinal Health
License Number	R-57025
Priority (IMC 2800)	2
Last inspection date	3/31/03
Date Due	3/31/05
Amount of Time Overdue	36 months

Licensee Name	Cardinal Health
License Number	R-79272
Priority (IMC 2800)	2
Last inspection date	9/12/01
Date Due	9/12/03
Amount of Time Overdue	49 months

Licensee Name	Duratek Services
License Number	R-79171
Priority (IMC 2800)	2
Last inspection date	5/23/00
Date Due	5/22/02
Amount of time overdue	65 months

Licensee Name	Regional Hospital Jackson
License Number	R-57011
Priority (IMC 2800)	2
Last inspection date	8/11/05
Date Due	8/11/07
Amount of Time Overdue	8 months

Licensee Name	Jackson Madison County General
License Number	R-57002
Priority (IMC 2800)	3 – 02120
Last inspection date	3/14/03
Date Due	3/14/06
Amount of Time Overdue	16 months

Licensee Name	Jackson Madison County General
License Number	R-57002
Priority (IMC 2800)	3 – 02210
Last inspection date	3/14/03
Date Due	3/14/06
Amount of Time Overdue	16 months

License Name	Methodist University Hospital
License Number	R-79027
Priority (IMC 2800)	3 – 02210
Last inspection date	6/9/00
Date Due	6/9/03
Amount of time overdue	49 months

License Name	Methodist University Hospital
License Number	R-79027
Priority (IMC 2800)	2 – 02230
Last inspection date	3/17/03
Date Due	3/17/06
Amount of time overdue	31 months

License Name	Methodist University Hospital
License Number	R-79027
Priority (IMC 2800)	initial
Last inspection date (issuance)	11/16/04
Date Due	11/16/05
Amount of time overdue	29 months

Resources have been allocated from one region to another to reduce the number of overdue inspections. In addition, two positions have been filled in the Memphis region with one of those being an experienced health physics inspector.

14. Please provide the number of reciprocity licensees that were candidates for inspection per year as described in IMC 1220 and the number of candidate licensee reciprocity inspections that were completed each year during the review period.

Reciprocity inspection totals and percents 2004 – March 2008

Year	Number of licensees that came into the state to perform category 1, 2, or 3 (Core) reciprocity work	Total number of inspections performed on category 1, 2, and 3 licensees	Percent Inspected
2004	11	7	64
2005	14	7	50
2006	18	7	39
2007	12	8	67
2008 Through March	10	2	20

P. Technical Quality of Inspections

15. What, if any, changes were made to your written inspection procedures during the reporting period?

See Following Procedures

- **Waste Processors**
- **Inspection & Enforcement Policy and Procedures 008-0 (Draft)**
- **Inspection & Enforcement Policy and Procedures 012-0 (Draft)**
- **Inspection & Enforcement Policy and Procedures 014-0 (Draft)**

WASTE PROCESSORS

1. **Possession & Authorizations**
   a. **Compare Isotopes Possessed With Authorized Possession**
   b. **Determine Amount of Possession**
   c. **Check if Users Have Been Properly Approved**
   d. **Determine Locations of Storage, Processing and Staging**

2. **Training of Personnel**
   a. **Adequate Training Program Present**
   b. **Training Program Implemented Appropriately**

3. **Operating Procedures and Associated Records**
   a. **Receipt, Tracking and Disposal Systems**
   b. **Transfer and Waste Disposal**
   c. **Leak Tests of Sealed Sources**
   d. **Survey Program**
   e. **Personnel Monitoring and Bioassay**
   f. **Effluents to Unrestricted Areas**
   g. **Air Sampling (employee/indoor and environmental)**
   h. **Internal Audit of Radiation Safety Program Content and Implementation**

4. **Protective Equipment and Associated Records**
   a. **Portable Monitoring Equipment**
   b. **Laboratory Counting Systems**
   c. **Adequate Shielding**
   d. **Proper Ventilation Systems**
   e. **Protective Personnel/Equipment (anti-contamination clothing, respiratory protection program)**

5. **Posting**
   a. **Documents Posted/Available**
   b. **Areas and Containers Properly Posted**

6. **Organization and Administration**
   a. **Management Organization and Function**
   b. **Radiation Safety Officer**
   c. **Authorized Uses and Supervision**
   d. **Employee Representatives**

7. **Inspector Visits/Surveys**
   a. **Observe Work Being Performed**
   b. **Record Independent Measurements of Radiation and/or Contamination Levels**
   c. **Review Records**
   d. **Interview Employees, Including Radiation Safety Officer**
   e. **Analyze Security**
   f. **Summarize Inspection With Management and/or RSO**

Inspection and Enforcement Policy and Procedures

State of Tennessee, Division of Radiological Health
008-0 (Draft)

Policy on ranking of citations in an NNC letter (for both RAM and X-ray)

Purpose
For inspectors to be able to identify and distinguish the health and safety significance of differing citations, and from that, be able to list citations from most significant to least significant in Notice of Non-Compliance (NNC) letters.

Scope
This should apply to both x-ray and radioactive material NNC letters.
Background
There has long been an unwritten policy of ranking citations in an NNC letter, from most significant to the least significant. This applies within the context of our distinction in an x-ray NNC of listing all machine requirement citations first and in a separate section

following, listing the general requirements (under the general assumption that machine requirements are usually more significant than general requirements).

Definitions
What is **significant** is not hard and fast, but often very obvious. Health and safety related violations should be listed first considering the safety significance, i.e., imminent hazard, serious, and non-serious.

Policy
Citations in an NNC letter should be listed in order of significance. The inspector should consider the violations in terms of health and safety significance and then to attempt to rank them accordingly. When two items hold health and safety concerns, immediate versus latent determines priority.

In x-ray, machine requirements should always precede general requirement issues.

Examples
For example, in x-ray, darkroom light tightness would come before registration issues (darkroom issues affecting retakes and therefore health and safety, versus the paperwork issues of registration).
Another example, under x-ray general requirements, a tech holding film is more significant than having a Notice to Employees posted and therefore, should be listed first.

When two items hold health and safety concerns, immediate versus latent determines priority. For example, a tech holding film versus darkroom light tightness; the tech holding film is near the primary beam, whereas darkroom issues may or may not directly affect retakes.

The obvious will be easy. When it becomes a close call, don't worry about it and just do your best. A letter will not be sent back because we disagree as to whether room posting or an animal holding log is more significant issue. However, as a rule of thumb, labeling and posting issues should probably be near the bottom of the list of citations. Whether the facility has already responded to the citation (e.g., the registration form was completed during the inspection) should not affect ranking. Policy 008-0 12/03 CAJ

Inspection and Enforcement Policy and Procedures State of Tennessee, Division of Radiological Health 012-0 (Draft)

Department of Transportation (DOT) Regulations Inspection Checklists

Attached are 4 documents. They are for helping an inspector during the DOT portion of a transportation inspection. They are checklist documents that can become part of the inspection report. They are for the following types of shipments:

a) For Radioactive Materials Shipment
b) For Instrument/Article Shipment
c) For Radioactive Article Containing Natural Uranium or Thorium Shipment
d) For Limited Quantity Shipment

Transportation Regulations Inspection Checklist for Radioactive Materials*

Methods of Transportation (Check Those That Apply)

____ Private Carrier (Licensee transports to and from sites of use themselves)
____ Common Carrier (Licensee transfers to a carrier, i.e. Fed Ex., Yellow Freight, SEG, etc.)

General Information

___Yes ___ No Shipping papers available and stored in proper location in vehicle (i.e. ,side pocket on door or in seat)? [177.817(e)]
___Yes ___ No Emergency Response Information (i.e. DOT Emergency Response guidebook or equivalent) available, adequate, and stored in proper location? [172.602]
___Yes ___ No If shipments of "Special Form" radioactive materials are made, is there a Special Form certificate on file at the shipper's facility? [173.476(a)]

Shipping Papers (Not Required for Limited Quantity/Instrument and Article Shipments)

___Yes ___ No Shippers Name listed? [172.201(b)]
___Yes ___ No Continuation Page identified properly (Page 1 of 2, etc.)? [172.201I]
___Yes ___ No Emergency response telephone number listed (i.e. "Emergency Contact: .....")? [172.201(d)]
___Yes ___ No Proper Shipping Name listed? [172.202(a)(1)]
___Yes ___ No UN ID Number listed? [172.202(a)(3)]
___Yes ___ No Total quantity of packages and weight of packages listed? [172.202(a)(4)]
___Yes ___ No Reportable Quantity (RQ) listed? [172.203I(2)]
___Yes ___ No RQ listing required (i.e. does activity present exceed RQ values)? [171.8, Table 2 of Appendix to 172.101]
___Yes ___ No Radionuclides listed on papers [172.203(d)(1)(i)]
___Yes ___ No Description of Chemical and Physical Form (Except when special form)? [172.203(d)(1)(ii)]
___Yes ___ No Activity listed on papers (In Bequerels or sub/multiples of, and then optionally in Curies or sub/multiples of Curies; For fissile materials grams are not required, but, may be listed optionally for some isotopes or in addition to activity for others isotopes)? [172.203(d)(1)(iii)]
___Yes ___ No Highway Route Controlled Quantity (HRCQ) listed? [172.203(d)(1)(iii)]
___Yes ___ No HRCQ required (i.e. does activity present exceed HRCQ values)? [173.403(l)]
___Yes ___ No Type of Radioactive labels (White-1, Yellow –II, Yellow –III) applied to the package listed? [172.203(d)(1)(iv)]
___Yes ___ No Transport Index for package(s) listed? [172.203(d)(1)(v)]

___Yes ___ No If Fissile Material and not a fissile excepted shipment, is "Warning – Fissile Material....." listed? [172.203(d)(7)(ii).
___Yes ___ No Type B package Identification Markings listed? [172.203(d)(1)(vii)]
___Yes ___ No Instructions for Exclusive Use vehicles only (N/A if Private Carrier)? [173.441(l]
___Yes ___ No Shipper's Certification listed and signed (N/A if private carrier)? [172.204]

Placarding

___Yes ___ No Placarding required (i.e. Package with Radioactive Yellow-III label)? [172.504]
___Yes ___ No Placarding posted on all 4 sides of vehicle (front of truck can be posted in lieu of front of trailer for truck /trailer combos.)? [172.504]
___Yes ___ No Type of placarding appropriate: _____ HRCQ Radioactive _____ Standard Radioactive
[172.257]

* Not designed for use with LSA shipments, Exclusive Use Shipments, or Highway Route Controlled Quantity shipments

Package Information

Type of package used primarily for shipment:
_____ Strong, Tight, Container (STC)
_____ Type A
_____ Type B

___Yes ___ No Package appropriate for type and activity of radioactive material shipped? [173.433]

If Limited Quantity Package:

___Yes ___ No The outside of the packaging, or the outside of the inner packaging, bears marking "Radioactive"? [173.421(a)(4)]
___Yes ___ No Notice enclosed in or on the package, included in packing list, or otherwise forwarded with the package which provides: 1) Name of consignee or consignor, 2) The statement "This package conforms to the conditions and limitations specified in 49 CFR 173.421 for excepted radioactive material, limited quantity, UN 2910"? [173.422(a)(1)]
___Yes ___ No Radiation levels on surface of the package less than 0.5 mR/hr? [173.421(a)(2)]
___Yes ___ No Removable contamination levels less than 220 dpm/100 cm^2 alpha and 2200 dpm/100 cm^2 beta/gamma on surface of package? [173.421(a)(3)]

** No other requirements listed apply.

If Instrument and Article Package:

___Yes ___ No Notice enclosed in or on the package, included in packing list, or otherwise forwarded with the package which provides: 1) Name of consignee or consignor, 2) The statement "This package conforms to the conditions and limitations specified in 49 CFR 173.422 for excepted radioactive material, instruments and articles, UN 2911"? [173.421-1(a)]

___Yes ___ No Radiation levels at 4 inches from external surface of unpackaged instrument/article less than 10 mR/hr? [173.422l]
___Yes ___ No Radiation levels on surface of the package less than 0.5 mR/hr? [173.422(d)]
___Yes ___ No Removable contamination levels less than 220 dpm/100 cm^2 alpha and 2200 dpm/100 cm^2 beta/gamma on surface of package? [173.421(e)]

** No other requirements listed apply.

If Type A Package:

___Yes ___ No Does shipper have on file at their facility documentation of Type A package specification certification (i.e. tests and an engineering evaluation showing that the construction methods, packaging design, and materials of construction comply with that specification)? [173.415(a)]
___Yes ___ No Type A package has a security seal? [173.412(a)]

All other items listed below under "General Specification Package Requirements" and "Radiological Survey Information" apply.

If Type B Package:

___Yes ___ No Certificate of Compliance (COC) available for Type B containers? [173.471(d)]
COC Number _____
Expiration date_____
Package Identification Number_____
___Yes ___ No Is shipper a registered user of the Type B package? [173.471(a), 10 CFR 71.12]
___Yes ___ No Package marked with proper identification markings indicating package certificate number on outside of package? [173.471(b)]

Package ID Markings:_____

_____

_____

___Yes ___ No Type B package has a security seal? [10 CFR 71.43(b)]

All other items listed below under "General Specification Package Requirements" and "Radiological Survey Information" apply.

General Specification Package Requirements:

___Yes ___ No Shipper has an NRC authorized Quality Assurance program? [10 CFR 71.101(b)]
___Yes ___ No Documentation of Quality Control Tests of package available? [173.475, 173.474}
___Yes ___ No The scope and results of the Quality Control tests appear adequate? [173.475, 173.474]

___Yes ___ No Is package provided with appropriate Radioactive labels (Note: compare results of radiation surveys at surface and 1 meter to determine appropriateness of labels)? [172.403]

White I = Surface: < 0.5 mR/hr ; 1 Meter: < 0 mR/hr
Yellow II = Surface: < 50 mR/hr ; 1 Meter: < 1 mR/hr
Yellow III = Surface: < 200 mR/hr ; 1 Meter: < 10 mR/hr

___Yes ___ No Are Radioactive Labels placed on two sides of the package? [172.403(f), 172.406(e)]
___Yes ___ No Are labels marked with the radionuclides, activity (In Bequerels or sub/multiples of, and then optionally in Curies or sub/multiples of), and Transport Index of the package? [172.403(g)]
___Yes ___ No Are "Cargo Aircraft Only" labels placed on two sides of the package (unless shipment for research or medical)? [173.448(f), 172.406(e)]

___Yes ___ No For Fissile materials, are labels marked with the weight in grams/kilograms of listed fissile isotopes (Gram weight is not required, but may be listed in addition to activity)? [172.403(g)(2)]
___Yes ___ No Gross weight of package marked on outside of package if over 110 lbs? [172.310(a)(1)]
___Yes ___ No Package marked as "Type ...." (i.e. A or B) on outside of package (1/2" High)? [172.310(b)(2)]
___Yes ___ No If package to be exported, then package marked with "USA" in conjunction with the specification marking.? [173.310(a)(3)]
___Yes ___ No Package marked with Proper Shipping name (PSN) and UN Number? [172.301]
___Yes ___ No Package marked with name and address of Consignee/Consignor (except when exceptions met)? [172.306]
___Yes ___ No Package marked with "RQ" if there is a Reportable Quantity? [172.324]
___Yes ___ No Package marked with "THIS SIDE UP" and an arrow indicating the direction of up if there is liquids in package (except when exceptions met)? [172.312]
___Yes ___ No Package securely blocked/braced to prevent shifting during transport? [177.842(d)]

Radiological Information

___Yes ___ No Radiation levels on surface of package < 200 mR/hr for open bed trailer/transport vehicle and < 1000 mR/hr for closed transport vehicle or open vehicle with personnel barrier under exclusive use? [173.441]
___Yes ___ No Radiation levels at 1 meter (3.2 feet) from the surface of the package < 10 mR/hr ? [173.441]
___Yes ___ No Radiation levels at surface of the closed transport vehicle or at vertical plane of outer edge of open transport vehicle < 200 mR/hr? [173.441]
___Yes ___ No Radiation levels at 2 meters (6.6 feet) from the outer lateral surface of a closed transport vehicle or from the vertical plane of the outer edge of an open transport vehicle (i.e. flat bed type vehicle) < 10 mR/hr ? [173.441]
___Yes ___ No Radiation levels < 2 mR/hr in any occupied space of the vehicle (i.e. sleeper bay and driver/passenger areas of truck cab)? [173.441]
___Yes ___ No Radiation contamination levels less than 220 dpm/100 cm^2 alpha and 2200 dpm/100 cm^2 beta/gamma on surface of package? [173.443]

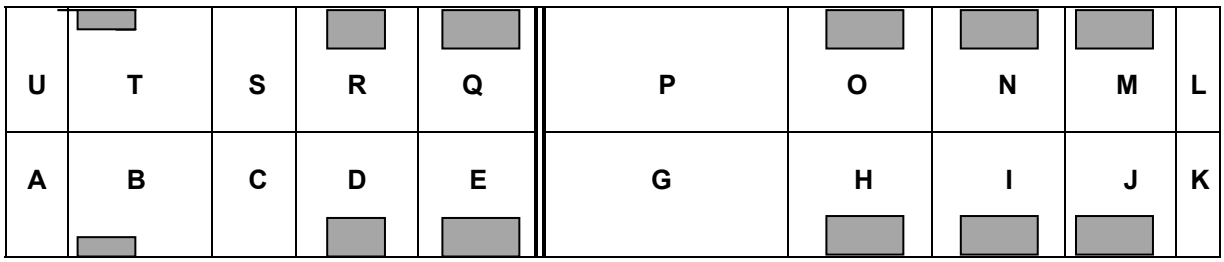
Comments:

1-2-97

Radiological Surveys

Radiation Level Surveys	Radiological Contamination Level Surveys
Instrument 1 Used:_____	Instrument 1 Used:_____
Serial Number: _____	Serial Number: _____
Calibration Date: _____	Calibration Date: _____
Instrument 2 Used:_____	Probe 1 Used: _____
Serial Number: _____	Efficiency: _____
Calibration Date: _____	Probe 2 Used: _____
Instrument 3 Used: _____	Efficiency: _____
Serial Number: _____	Instrument 2 Used: _____
Calibration Date: _____	Serial Number: _____
Instrument 4 Used: _____	Calibration Date: _____
Serial Number: _____	Probe 1 Used: _____
Calibration Date: _____	Efficiency: _____
	Probe 2 Used: _____
	Efficiency: _____

Vehicle Location Codes for Surveys



Front – Driver's Side Back

Max. dose rate at edge of (vertical plane) of trailer bed: _____ mR/hr

Max. dose rate on bottom surface of trailer bed: _____ mR/hr

Max. dose rate at 2 meters (6.6 feet) from edge (vertical plane) of trailer: _____ mR/hr

Max. dose rate in truck cabin: _____ mR/hr

Package Location Codes for Surveys

A	**D**	**G**	**J**
B	**E**	**H**	**K**
C	**F**	**I**	**L**
FRONT (Passenger Side)	BACK	LEFT (Drivers Side)	RIGHT

M
TOP

Max. dose rate at surface of package: _____ mR/hr

Max. Dose rate at 1 meter from package: _____ mR/hr

Vehicle Radiological Surveys

*Radiation Level Surveys (mR/hr)						Contamination Level Surveys (dpm/100 cm^2)		
Location Codes	Instrument	Backg-round	Lateral Surface	2- Meter (6.6 feet)	Under-carriage	Probes Used	Net Alpha	Net Beta/Gamma
A								
B								
C								
D								
E								
F								
G								
H								
I								
J								
K								
L								
M								
N								
O								
P								
Q								
R								
S								
T								
U								

* Top Numbers = Total Beta/Gamma mRem/hr
Bottom Numbers = Total Neutron mRem/hr

Package Radiological Surveys

*Radiation Level Surveys (mR/hr)						Contamination Level Surveys (dpm/100 cm^2)		
Location Codes	Instrument	Backg-round	Lateral Surface	1- Meter (3.2feet)	Under-carriage	Probes Used	Net Alpha	Net Beta/Gamma
A								
B								
C								
D								
E								
F								
G								
H								
I								
J								
K								
L								
M								

* Top Numbers = Total Beta/Gamma mRem/hr
Bottom Numbers = Total Neutron mRem/hr

DOT Radioactive Article Containing Natural Uranium or Thorium Shipment Inspection Checklist

___Yes ___ No The manufactured article's sole radioactive material content is of natural or depleted uranium or natural thorium? [173.426]

___Yes ___ No The outer surface of the uranium or thorium is enclosed in an inactive sheath made of metal or other durable protective material?[173.426(b)]

___Yes ___ No The package meets general design requirements?[173.426(a)]

___Yes ___ No Radiation levels on surface of the package less than 0.5 mR/hr? [173.426l]

___Yes ___ No Removable contamination levels less than 220 dpm/100 cm^2 alpha and 2200 dpm/100 cm^2 beta/gamma on surface of package? [173.426l]

___Yes ___ No The outside of the packaging, or the outside of the inner packaging, bears marking "Radioactive"? [173.426l]

___Yes ___ No Notice enclosed in or on the package, included in packing list, or otherwise forwarded with the package which provides: 1) Name of consignee or consignor, 2) The statement "This package conforms to the conditions and limitations specified in 49 CFR 173.426 for radioactive material, excepted package- articles manufactured from natural or depleted uranium or natural thorium, UN 2910"? [173.426(d)][173.422(a)(1)]

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DOT Radioactive Instrument/Article Shipment Inspection Checklist

___Yes ___ No The activity of the Instrument/ Article less than limits ? (173.424(b).

___Yes ___ No The total activity per package does not exceed the limits Instrument/Article packages? [173.424l

___Yes ___ No The package meets general design requirements?[173.424(a)]

___Yes ___ No Notice enclosed in or on the package, included in packing list, or otherwise forwarded with the package which provides: 1) Name of consignee or consignor, 2) The statement "This package conforms to the conditions and limitations specified in 49 CFR 173.424 for radioactive material, excepted package-instruments or articles, UN 2910"? [173.424(h)][173.422(a)(1)]

___Yes ___ No Radiation levels on surface of the package less than 0.5 mR/hr, or, for exclusive use shipments 2 mR/hr? [173.424(e)]

___Yes ___ No Radiation levels at 10 cm (4 in) from surface of unpackaged instrument or article < 10 mR/hr? [173.424(d)]

___Yes ___ No Removable contamination levels less than 220 dpm/100 cm^2 alpha and 2200 dpm/100 cm^2 beta/gamma on surface of package? [173.424(f)]

___Yes ___ No The shipment does not contain more than 15 grams of U-235? [173.424(g)]

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DOT Limited Quantity Shipment Inspection Checklist

___Yes ___ No The activity in the package meets the limits for limited quantity? (173.421(a).

___Yes ___ No The package meets general design requirements?[173.421(a)(1)]

___Yes ___ No The outside of the packaging, or the outside of the inner packaging, bears marking "Radioactive"? [173.421(a)(4)]

___Yes ___ No Notice enclosed in or on the package, included in packing list, or otherwise forwarded with the package which provides: 1) Name of consignee or consignor, 2) The statement "This package conforms to the conditions and limitations specified in 49 CFR 173.421 for excepted radioactive material, limited quantity, UN 2910"? [173.422(a)(1)]

___Yes ___ No Radiation levels on surface of the package less than 0.5 mR/hr? [173.421(a)(2)]

___Yes ___ No Removable contamination levels less than 220 dpm/100 cm^2 alpha and 2200 dpm/100 cm^2 beta/gamma on surface of package? [173.421(a)(3)]

___Yes ___ No The shipment does not contain more than 15 grams of U-235? [173.421(a)(5)]

___Yes ___ No The shipment is not a "hazardous substance" or "hazardous waste"? [173.421(b)

No other packaging, marking, labeling or shipping paper requirements apply.

Rev.1, 9-15-99

Inspection and Enforcement Policy and Procedures
State of Tennessee, Division of Radiological Health
014-0 (Draft)

Policy on Self-Reporting of Violations

INTRODUCTION AND PURPOSE
Members of the regulated community are sometimes proactive in the identification of non-compliance at their facilities. The Division encourages self-disclosure of violations of the Tennessee Regulations for Protection Against Radiation (SRPAR) and/or other prescriptive radiation safety commitments. The Division intends to work cooperatively with licensees and registrants to promote self-reporting of violations at their respective facilities.

OBJECTIVE
The objective of this policy is to provide guidance in the evaluation of self-reported noncompliance by licensees and registrants.

POLICY
If a licensee or registrant self reports a violation, discretion may be applied in determining the need to cite if the following are met:

-the report describes the corrective actions that have already been taken to remedy the violation;
-the report describes actions taken to prevent recurrence;
-the violation is of a non-serious nature with regard to health and safety;
-the violation is not a repeat from a recent inspection/investigation.

16. Prepare a table showing the number and types of supervisory accompaniments made during the review period. Include:

Inspector Supervisor License Category Date

Inspector accompaniment table for all inspectors doing RAM inspections from 2004 – 2008				
Inspector	**Supervisor**	**License Category**	**Date**	**Comments**
Knoxville Office				
Mark Andrews			**2004**	
Mark Andrews			**2005**	
Mark Andrews	Billy Freeman	2 Waste Processor	5/5/2006	Studsvik
Mark Andrews	Billy Freeman	3 Academic Broad	3/7/2007	ETSU
Anthony Hogan	Mark Andrews	2 Waste Processor	9/24/2007	M & EC
Anthony Hogan	Mark Andrews	2 Waste Broker	3/11/2008	Bionomics

Chuck Johnson			**2004**	
Chuck Johnson			**2006**	
Kim Gilliam	Shawn Drake	3 Medical	12/10/2004	
Kim Gilliam			**2005**	
Kim Gilliam			**2006**	
Myra Norwood	Kim Gilliam	3 Medical	10/26/2005	
Myra Norwood	Shawn Drake	3 Medical	3/1/2006	
Myra Norwood	Mark Andrews	3 Medical	2/14/2007	
Myra Norwood	Mark Andrews	3 Medical	3/18/2008	HDR
Stacey Hamilton	Shawn Drake	5 Portable Gauge	6/29/2004	
Stacey Hamilton	Shawn Drake	5 Portable Gauge	10/17/2005	TN-05-124, 115
Stacey Hamilton	Chuck Johnson	3 Medical	3/23/2006	
Stacey Hamilton	Jon Thompson	2 Waste Processor	3/31/2006	
Stacey Hamilton	Chuck Johnson	5 Industrial	5/19/2006	Sealed Source
Stacey Hamilton	Chuck Johnson	3 Medical	8/14/2006	
Stacey Hamilton	Mark Andrews	3 Medical	11/9/2006	
Stacey Hamilton	Chuck Johnson	3 Medical	1/29/2007	
Stacey Hamilton	Mark Andrews	3 Medical	6/12/2007	
Stacey Hamilton	Anthony Hogan	3 Medical	1/11/2008	
Stacey Hamilton	Mark Andrews	2 Calibration	3/26/2008	IC, ICAL
Nathan Foutch	Mark Andrews	2 Waste Processor	4/26/2004	M & EC
Nathan Foutch	Shawn Drake	2 Waste Processor	4/30/2004	M & EC
Nathan Foutch	Shawn Drake	2 Waste Broker	7/15/2004	Philotechnics
Nathan Foutch	Shawn Drake	1 Radiographer	8/9/2004	SITI incident
Nathan Foutch	Shawn Drake	2 Waste Processor	11/10/2004	Duratek
Nathan Foutch	Shawn Drake	2 Waste Processor	4/1/2005	M & EC
Inspector	**Supervisor**	**License Category**	**Date**	**Comments**
Josh Munyon	Shawn Drake	5 Portable Gauge	2/24/2006	
Josh Munyon	Jon Thompson	2 Waste Processor	2/17/2006	Toxco
Josh Munyon	Shawn Drake	2 Waste Processor	4/26/2006	IMPACtS
Josh Munyon	Chuck Johnson	5 Industrial	5/19/2006	Sealed Source
Josh Munyon	Mark Andrews	3 Medical	7/24/2007	
Josh Munyon	Anthony Hogan	2 Waste Processor	11/1/2007	Philotechnics

Josh Munyon	Anthony Hogan	1 Radiographer	12/5/2007	AFCO
Josh Munyon	Anthony Hogan	3 Medical	2/26/2008	
Roger Macklin	Mark Andrews	2 Waste Processor	11/23/2004	Studsvik
Roger Macklin	Shawn Drake	3 Medical	12/21/2005	Pharmacy
Roger Macklin			**2006**	
Roger Macklin	Mark Andrews	2 Waste Processor	2/20/2007	Duratek
Roger Macklin	Anthony Hogan	5 Gauge	3/31/2008	Elekta
Shawn Drake			**2005**	
Shawn Drake			**2006**	
Jon Thompson	Mark Andrews	2 Waste Processor	11/2/2004	Duratek
Jon Thompson			**2005**	
Jon Thompson			**2006**	
Jon Thompson	Mark Andrews	2 Waste Processor	2/20/2007	Duratek
Jon Thompson	Mark Andrews	5 Industrial	12/3/2007	Siemens
Brian Williams	Shawn Drake	5 Industrial	12/14/2005	Paint Analyzer
Brian Williams	Shawn Drake	2 Waste Broker	12/15/2005	Bionomics
Brian Williams	Shawn Drake	1 Well Logger	12/16/2005	
Brian Williams	Shawn Drake	5 Portable Gauge	12/14/2005	
Brian Williams	Jon Thompson	5 Industrial	12/21/2005	Teledyne Brown
Brian Williams	Shawn Drake	5 Portable Gauge	1/20/2006	
Brian Williams	Roger Macklin	3 Academic Broad	1/25/2006	
Brian Williams	Shawn Drake	2 Waste Processor	4/26/2006	IMPACtS
Brian Williams	Chuck Johnson	5 Industrial	5/19/2006	Sealed Source
Brian Williams	Mark Andrews	3 Medical	4/5/2007	
Brian Williams	Anthony Hogan	3 Medical	9/4/2007	
Brian Williams	Anthony Hogan	5 Industrial	2/14/2008	Siemens
Brian Williams	Anthony Hogan	3 Medical	1/17/2008	
Brian Williams	Anthony Hogan	3 Medical	1/2/2008	
Chris Milsaps	Mark Andrews	2 DU Processor	5/7/2004	MSC
Inspector	**Supervisor**	**License Category**	**Date**	**Comments**
Norman Miller	Anthony Hogan	5 Portable Gauge	8/23/2007	started in 2007
Norman Miller	Anthony Hogan	3 Medical	11/9/2007	

Norman Miller	Anthony Hogan	3 Medical	2/28/2008	
Norman Miller	Anthony Hogan	3 Medical	1/25/2008	
Norman Miller	Anthony Hogan	3 Medical	3/18/2008	
Marsha Smith	Shawn Drake	3 Medical	3/31/2004	
Marsha Smith	Shawn Drake	2 HDR source changeout	11/10/2004	Alpha – Omega
Marsha Smith	Shawn Drake	3 Medical	12/14/2004	
Marsha Smith	Shawn Drake	3 Medical	3/31/2005	
Memphis Office				
John Garland	Allen Grewe	3 Medical	9/11/2003	
John Garland	Allen Grewe	3 Medical	1/22/2004	
John Garland	Allen Grewe	3 Medical	9/8/2004	
John Garland			**2005**	
Grigsby Stevens	Allen Grewe	1 Ind. Radiography	9/14/2004	Tri-State
Grigsby Stevens	Allen Grewe	5 Gauges	1/21/2005	Did 6 inspections
Grigsby Stevens			**2006**	
Grigsby Stevens	Allen Grewe	2 Waste Processor	3/9/2007	RACE
Grigsby Stevens	Allen Grewe	5 Academic R & D	12/21/2007	UM
Stuart Belva			**2006**	
Stuart Belva	Allen Grewe	3 Medical	2/6/2007	
Stuart Belva	Allen Grewe	3 Medical	6/27/2007	
Stuart Belva	Allen Grewe	5 consulting	12/1/2007	Robert J. Wilson
Mary Gandy	Allen Grewe	3 Medical	12/5/2006	
Mary Gandy	Allen Grewe	3 Medical	5/30/2007	
Allen Grewe	Debra Shults	3 Medical	3/24/2004	HDR
Allen Grewe	Billy Freeman	3 Medical	2/24/2005	Gamma Knife
Allen Grewe	Billy Freeman	2 Waste Processor	12/14/2005	RACE
Allen Grewe			**2006**	
Allen Grewe	Billy Freeman	3 Medical	12/4/2007	

Inspector	Supervisor	License Category	Date	Comments
Chattanooga Office				
John Politte			**2004**	
John Politte			**2005**	
John Politte			**2006**	
John Politte			**2007**	
Wade Brewer	John Politte	Nuclear Medicine	11/15/2005	
Wade Brewer			**2006**	
Wade Brewer	Steve Seeger	Nuclear Medicine	6/29/07	
Steve Seeger	John Politte	Medical Pharmacy	12/8/2004	
Steve Seeger	John Politte	Medical	8/11/2005	
Steve Seeger	Billy Freeman	Blood Irradiator	4/12/2006	
Steve Seeger	Billy Freeman	Industrial	6/18/2007	Grace
Steve Seeger	Billy Freeman	Fixed Gauge	12/11/2007	
Nashville Office				
Travis Barber	Paula Richardson	source exchange	12/8/2006	
Travis Barber	Paula Richardson	Nuclear Medicine	2/27/2007	
Gerald Kwazu			**2004**	
Gerald Kwazu	Travis Barber	Medical	2/3/2005	
Gerald Kwazu	Travis Barber	Medical	3/2/2006	
Gerald Kwazu	Travis Barber	Radiography	11/15/2007	
Robin Heriges			**2006**	Only did one inspection during 2006
Last revision 4-1-08 CAJ				

17. Describe or provide an update on your instrumentation, methods of calibration and laboratory capabilities. Are all instruments properly calibrated at the present time? Were there sufficient calibrated instruments available throughout the review period?

We have a contract with K & S Associates, Inc. to calibrate our instruments. They provide calibration service for all our survey instruments with the exception of our Ludlum 12-4 neutron detector, which is returned to Ludlum annually for calibration. These calibrations comply with ANSI N323A-1997. K & S Associates, Inc., is accredited by the American Association for Laboratory Accreditation (A2LA). Our calibration program is maintained from the central office in Nashville. Instrument locations and calibration dates are tracked on the same spreadsheet. When a field office instrument is due for calibration, a swap is arranged using the surplus of instruments located in the central office. This assures that the field office is never without a calibrated instrument. Repair of malfunctioning instruments is also coordinated from the central office with an instrument swap, which is accomplished as soon as possible. This is an ongoing process with instrumentation coming due for calibration every month. See attached copy of our calibration records.

Radiation Detectors Inventory and Calibration Program

Cal Date	MANUF.	MOD#	SN#	TYPE	#	Probe#	LOC.	TAG #	Comments
	APTEC	Odyssey	9404-1Q		Multi-Chann		Cent. Off	P67589	
3/5/2008	BICRON	MICREM	B465Y*	ORGAN SCINT.			Cent. Off	J29303	special shipping req.
2/20/2004	BICRON	MICREM	B469Y*	ORGAN SCINT.			Cent. Off	J29302	Broken returned
3/17/2008	CANARY II	4080	1083	PIN DIODE			Cent. Off		
11/17/2007	CANARY II	4080	1086	PIN DIODE			Cent. Off		
3/6/2008	CANARY II	4080	1088	PIN DIODE			Cent. Off		
11/1/2007	CANARY III	4083	501	PIN DIODE			Cent. Off		
3/17/2008	CANARY III	4083	504	PIN DIODE			Cent. Off		
3/6/2008	CANARY III	4083	507	PIN DIODE			Cent. Off		
11/17/2007	CANARY III	4083	508	PIN DIODE			Cent. Off		
	Canberra	Insp1000	5058520	NaI Spectrometer			Cent. Off	K92886	
3/6/2008	EBERLINE	RM-25	192			HP-360	Cent. Off		
3/14/2007	EBERLINE	RO-2	1816	ION CHAMBER			Cent. Off	DRH-0..5	
3/14/2008	EBERLINE	RO-2A	1677	ION CHAMBER			Cent. Off	F30929	
3/14/2008	EBERLINE	RO-2A	1743	ION CHAMBER			Cent. Off	F30933	
12/8/2004	EBERLINE	RO-2A	1803	ION CHAMBER			Cent. Off	F30931	Broken returned
3/28/2005	EXPLORANIUM	GR-135	3071				Cent. Off		
8/23/2004	KEITHLEY	36155	75126	ION CHAMBER			Cent. Off		Needs Repair
12/11/2007	KEITHLEY	36155	75127	ION CHAMBER			Cent. Off		
3/14/2008	LUDLUM	3	2150	END WINDOW G.M.	44-4	148226	Cent. Off	B13249	
5/29/2007	LUDLUM	3	39265	PANCAKE G.M.	44-9	PR155685	Cent. Off	DRH-0..1	
5/29/2007	LUDLUM	5	3809	INTERNAL G.M.			Cent. Off	B52758	
2/4/2008	LUDLUM	12-S	5817	INTERNAL NaI			Cent. Off	B69192	
4/17/2007	LUDLUM	12-S	92491	INTERNAL NaI			Cent. Off	P50692	
7/12/2007	LUDLUM	12-S	92502	INTERNAL NaI			Cent. Off	P50689	
8/22/2007	LUDLUM	12	21665	SIDE WINDOW G.M.	HP-270	KIT 5	Cent. Off	F30857	
8/22/2007	LUDLUM	12	21665	NaI SCINT.	44-2	PR6255	Cent. Off	F30857	
8/22/2007	LUDLUM	12	21665	PANCAKE G.M.	44-9	PR6044	Cent. Off	F30851	
8/22/2007	LUDLUM	12	21665	ZnS SCINT.	43-2	7527	Cent. Off		
3/7/2008	LUDLUM	12	21688	SIDE WINDOW G.M.	HP-270	KIT 3	Cent. Off	47905	
3/7/2008	LUDLUM	12	21688	PANCAKE G.M.	44-9	PR6045	Cent. Off	47905	
3/7/2008	LUDLUM	12	21688	NaI SCINT.	44-2	PR6254	Cent. Off	47905	
3/7/2008	LUDLUM	12	21688	ZnS SCINT.	43-2	PR7526	Cent. Off	47905	
2/4/2008	LUDLUM	12	105701	PANCAKE G.M.	44-9	PR106665	Cent. Off		
2/4/2008	LUDLUM	12	105701	SIDE WINDOW G.M.	44-38	PR106666	Cent. Off		
2/4/2008	LUDLUM	12	105701	NaI SCINT.	44-2	PR107144	Cent. Off	P59193	
2/4/2008	LUDLUM	12	105701	ZnS SCINT.	43-2	PR085751	Cent. Off		
2/26/2008	LUDLUM	12-4	44437	BF3 REM			Cent. Off		
2/21/2008	LUDLUM	14-A	799	END WINDOW G.M.	44-4		Cent Off		
10/5/2007	LUDLUM	16	2651	ZnS SCINT	43-2	7526	Cent. Off	C47904	
10/5/2007	LUDLUM	16	2651	END WINDOW G.M.	44-4	200295	Cent. Off	C47904	
10/5/2007	LUDLUM	16	2651	PANCAKE G.M.	44-9	2651	Cent. Off	C47904	
10/5/2007	LUDLUM	16	2651	NaI SCINT.	44-3	G-2651	Cent. Off	C47904	
1/24/2008	LUDLUM	19	165274	INTERNAL NAI			Cent. Off		
12/26/2007	TCHASSOC	TBM 3P2	84173	ENER COMP GM			Cent. Off	DRH-0..2	
2/21/2008	Thermo	MicRem	1892	Organ. Scint			Cent Off		
3/6/2008	Thermo	MICREM	1893	ORGANIC SCINT.			Cent Off		

IV. Technical Quality of Licensing Actions

18. How many specific radioactive material licenses does the Program regulate at this time? 591

19. Please identify any major, unusual, or complex licenses which were issued, received a major amendment, were terminated, decommissioned, submitted a bankruptcy notification or renewed in this period.

Licenses Issued

Bristol Metals, LLC	**R-82057**
Eagle Testing	**R-33155**
Music City Nuclear Pharmacy	**R-19245**
Specialty Healthcare Partners	**R-33154**
Baptist Hospital of East Tennessee	**R-47188**
Precision Nuclear	**R-90046**
Environmental Dimensions	**R-01103**
Scenic City Isotopes	**R-33166**
Team Industrial Services	**R-79304**

Licenses Receiving Major Amendment

Berthold Technologies USA	**R-01082**	**A49**
St. Jude Children's Research Hospital	**R-79037**	**A101**
Bionomics	**R-73021**	**A8**
Philotechnics	**R-01084**	**A13**
RACE, LLC	**R-79273**	**A58**
IveyCooper Services	**R-33145**	**A10**
Regional Hospital of Jackson	**R-57011**	**A55**
St. Francis Hospital	**R-79104**	**A117**
Centennial Medical Center	**R-19132**	**A34**
Middle Tennessee Medical Center	**R-75009**	**A57**
Vanderbilt University	**R-19021**	**A122**
Memorial Health Care System	**R-33120**	**A17**
Baptist Hospital of east Tennessee	**R-47033**	**A31**
Mountain States dba Johnson City Medical Center	**R-90005**	**A36**

Licenses Terminated

Duratek Services	**R-73013 (combined with R-73008)**
Cardinal Health	**R-47157**
Gateway Medical Center	**R-63009**
Methodist Hospital	**R-79063**
Methodist Hospital	**R-79069**
University of Tennessee	**R-47006**
University of Tennessee	**R-47075**
Duratek Services	**R-01096**
Erlanger Health System	**R-33091**

Licenses Decommissioned

M4 Environmental	**R-01077**

Licenses Renewed

RACE, LLC	**R-79273**
Volunteer NDT	**R-33139**
St. Thomas Radiopharmacy	**R-19190**
Cardinal Health 414	**R-33111**
Cardinal Health	**R-47080**
Duratek Services	**R-73016**
Diversified Scientific Services	**R-73014**
Cardinal Health 414	**R-19149**
Nuclear Fuel Services	**R-86001**
Cardinal Health	**R-57025**
American Industrial Testing	**R-79210**
Vanderbilt University	**R-19021**
Toxco	**R-01037**
AFCO NDE	**R-01092**
General Physics	**R-16020**
Clinical Pharmacy Services	**R-90033**
Mallinckrodt Medical	**R-M7001**
World Testing	**R-95009**
Duratek Services	**R-79171**
Studsvik Processing Facility	**R-86011**
Chattanooga Boiler and Tank	**R-33102**
Alstom Power	**R-33001**
Cardinal Health	**R-79174**
Impact Services	**R-73024**
JANX	**R-19219**
Radiological Surgical Center	**R-79245**
Duratek Services	**R-73008**
Aerospace Testing Alliance	**R-16011**

20. Identify any licensees or groups of licensees that were issued increased controls during the review period. Those licensees that were initially identified during the initial implementation of increased controls need not be listed.

Philotechnics	**R-01084**
Team Industrial	**R-79304**

21. Discuss any variances in licensing policies and procedures or exemptions from the regulations granted during the review period.

Variances in records retention frequencies for medical licensees were granted.

Exemptions to "State Regulations for Protection Against Radiation" (SRPAR) 1200-2-10-.33(3) for naming authorized users for medical licenses were granted.

Exemptions to SRPAR 1200-2-10-.14(2)(b)2. For Mo-99 testing of generator elutions were granted to adopt NRC regulatory criteria.

Exemption granted to SRPAR 1200-2-8-.07(3) to not require two qualified radiographers when performing radiography at other than a permanent radiographic installation.

Exemption granted to SRPAR 1200-2-10-.13(10)(b) to not require authorized nuclear pharmacist for production of F-18.

22. What, if any, changes were made in your written licensing procedures (new procedures, updates, policy memoranda, etc.) during the reporting period?

A Radiological Information Notice was developed to specify a mechanism for adding individuals as Authorized Medical Physicists to applicable licenses.

A procedure was adopted to inform local governments of new licensees, changes in licensee locations, and transfers of licenses.

An effort was made to amend certain diagnostic medical licenses to modify their possession of radioiodine for license classification purposes.

Began using NRC criteria for sensitive information for Radioactive Material License file review.

Began specifying numbers of authorized sealed sources on licenses.

Began specifying activity limits for therapeutic radionuclides on licenses, and limiting therapeutic radioiodine use to capsules for certain licensees.

Began using NRC criteria for ensuring that Radioactive Materials Will Be Used as Intended for new applicants for Radioactive Material Licenses.

Accepted operating up to an annual dose limit of 0.5 rem for individual members of the public exposed to admitted patients.

Authorized the use of ANSI N13.41-1997 to calculate EDE for external exposures when demonstrating compliance with TEDE.

23. Identify by licensee name and license number any renewal applications that have been pending for one year or more. Please indicate why these reviews have been delayed and describe your action plan to reduce the backlog.

None

V. Technical Quality of Incident and Allegation Activities

24. For Agreement States, please provide a list of any reportable incidents not previously submitted to NRC (See Procedure SA-300, *Reporting Material Events*, for additional guidance, OMB clearance number 3150-0178). The list should be in the following format:

Licensee Name License # Date of Incident/Report Type of Incident

Licensee Name	*License #*	*Date of Incident/ Report*	*Type of Incident*
Duratek	R-73008	9/28/2007	Transportation
Frito-Lay Company	General License	9/14/2007	Lost Ni-63 Source
Siemens Molecular Imaging	R47101	9/18/2007	Transportation
Chemlabs	General License	12/2007	Lost Ni-63 Source
Duratek	R-73008	1/17/2008	Contamination
Meharry Medical College	General License 161	2/27/2008	Lost Devices
Mobile Tech Services	R-64007	3/3/2008	Diagnostic Misadministration

25. During this review period, did any incidents occur that involved equipment or source failure or approved operating procedures that were deficient? If so, how and when were other State/NRC licensees who might be affected notified? For States, was timely notification made to NRC? For Regions, was an appropriate and timely PN generated? For Agreement States, was information on the incident provided to the agency responsible for evaluation of the device for an assessment of possible generic design deficiency? Please provide details for each case.

No

26. Identify any changes to your procedures for responding to incidents and allegations that occurred during the period of this review.

None

C. NON-COMMON PERFORMANCE INDICATORS

P. Compatibility Requirements

27. Please list all currently effective legislation that affects the radiation control program. Denote any legislation that was enacted or amended during the review period.

TCA 68-202-101 through 709 and 68-203-101 through 105

28. Are your regulations subject to a "Sunset" or equivalent law? If so, explain and include the next expiration date for your regulations.

Rules adopted during any calendar year are subject to sunset June 30 of the following calendar year, unless approved by the legislature. Historically, all regulations approved by the Government Operations Committee (GOC) of the Tennessee General Assembly are then approved by the Legislature by passage of a bill. All DRH regulations must have approval of the GOC.

29. Please review and verify that the information in the enclosed State Regulation Status (SRS) sheet is correct. For those regulations that have not been adopted by the State, explain why they were not adopted, and discuss actions being taken to adopt them. If legally binding requirements were used in lieu of regulations, please describe their use.

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Current Status
1995-6	Clarification of Decommissioning Funding Requirements Parts 30, 40, 70 60 FR 38235	11/24/1998	Division is reviewing and resubmitting. 1997-current LTR adequate per MRB
1996-3	Termination or Transfer of Licensed Activities: Record keeping Requirements Parts 20, 30, 40, 61, 70 61 FR 24669	06/17/1999	Division is reviewing and resubmitting. 1997-current LTR adequate per MRB
2002-2	Medical Use of Byproduct Material Parts 20, 32, 35 67 FR 20249	10/24/2005	Rulemaking hearing rule- Preparing to send for NRC review Expected adoption: 2008
2003-1	Financial Assurance for Materials Licensees Parts 30, 40, 70 68 FR 57327	12/03/2006	Will begin as soon as Medical regs are finished
2004-1	Compatibility With IAEA Transportation Safety Standards and Other Transportation Safety	10/01/2007	Will begin as soon as Medical regs are finished

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Current Status
	Amendments Part 71 69 FR 3697		
2005-1	Security Requirements for Portable Gauges Containing Byproduct Material Part 30 70 FR 2001	07/11/2008	Licensing condition March 2008
2005-2	Medical Use of Byproduct Material – Recognition of Specialty Boards Part 35 70 FR 16336; 71 FR 1926	04/29/2008	Rulemaking hearing rule- Preparing to send for NRC review Expected adoption: 2008
2006-2	National Source Tracking System – Serialization Requirements Part 32 with reference to Part 20 Appendix E 71 FR 65685	02/06/2007	
2007-4	Order Imposing Fingerprinting Requirements and Criminal History Records Check Requirements for Unescorted Access to Certain Radioactive Material NRC Order EA-07-305 72 FR 70901	06/05/2008	Licensing condition June 2008

30. If you have not adopted all amendments within three years from the date of NRC rule promulgation, briefly describe your State's procedures for amending regulations in order to maintain compatibility with the NRC, showing the normal length of time anticipated to complete each step.

Tennessee has four procedures for amending regulations: Rulemaking Hearing Rules, Proposed Rules, Emergency Rules and Public Necessity Rules. The first two procedures, which lead to final rules, generally are used.

Under Rulemaking Hearing Rules procedures, after review of a proposed rule change — within the Division, by the Department's Office of General Counsel (OGC), and by outside interested parties — a date for a hearing is determined. Notice of the hearing must appear in the Tennessee Administrative Register (TAR) during the month preceding the meeting. Comments are accepted at the hearing or for a period of two weeks following the hearing. Any changes resulting from the comments received are made, and the finalized rule is sent back to the OGC for their final review. OGC sends the rule to the Department's

Commissioner for her signature and then to the State's Attorney General for review. After the Attorney General has signed it, the rule goes to the Office of the Secretary of State. Rulemaking Hearing Rules logged in at the Secretary of State become effective after a waiting period of 75 days.

Under Proposed Rules, rules considered non–controversial may be filed without a public hearing. After review of a proposed rule — this includes review in the Division, in the OGC, by outside interested parties, signature of the Commissioner, review by and signature of the Attorney General — notice of the proposed rule is published in the TAR with the provision that a petition requesting a public hearing may be filed by persons meeting established criteria. The rule is filed in the Office of the Secretary of State. In the absence of a petition, the rule becomes effective after a waiting period of 105 days.

Rules may bounce back and forth between the Division and the OGC as they make their way through OGC and Attorney General review.

After a rule becomes effective, representatives of the Division and the OGC will be scheduled to appear before the Government Operations Committee of the legislature for the Committee's approval.

P. Sealed Source and Device (SS&D) Evaluation Program

31. Prepare a table listing new and amended (including transfers to inactive status) SS&D registrations of devices issued during the review period. The table heading should be:

SS&D Registry Number	Manufacturer, Distributor or Custom User	Product Type or Use	Date Issued	Type of Action

SS&D Registry No.	Mfr, Dist. Or Customer User	Product Type or Use	Date Issued	Type of Action	Model
TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	3/10/2004	Amendment	LB 7400 Series
TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	2/25/2005	Amendment	LB 7400 Series
TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	6/23/2005	Amendment	LB 7400 Series
TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	1/20/2006	Amendment	LB 7400 Series
TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	7/3/2006	Amendment	LB 7400 Series
TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	1/2/2007	Amendment	LB 7400 Series
TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	8/15/2007	Amendment	LB 7400 Series

TN-1031-D-101-B	Berthold Technologies,U.S.A.	Gamma gauge dens/level	10/22/2007	Amendment	LB 7400 Series
TN-1031-S-102-S	Berthold Technologies,U.S.A.	Gamma source point	2/18/2004	Amendment	P2602-100
TN-1031-S-103-S	Berthold Technologies,U.S.A.	Gamma source rod	9/26/2005	Amendment	P2608-100
TN-1031-D-104-B	Berthold Technologies,U.S.A.	Gamma gauge rod/point	12/6/2004	Amendment	LB 300L, 300LP
TN-1031-D-104-B	Berthold Technologies,U.S.A.	Gamma gauge rod/point	7/19/2005	Amendment	LB 300L, 300LP
TN-1031-D-104-B	Berthold Technologies,U.S.A.	Gamma gauge rod/point	1/6/2006	Amendment	LB 300L, 300LP
TN-1031-D-104-B	Berthold Technologies,U.S.A.	Gamma gauge rod/point	9/21/2007	Amendment	LB 300L, 300LP
TN-1031-D-104-B	Berthold Technologies,U.S.A.	Gamma gauge rod/point	2/21/2008	Amendment	LB 300L, 300LP
TN-1031-D-107-S	Berthold Technologies,U.S.A.	Gamma gauge cable dip tub	9/21/2004	Amendment	LB 300IRL TY I
TN-1031-D-108-S	Berthold Technologies, U.S.A.	Gamma gauge molten metal	10/15/2004	Amendment	LB 300 ML, MLT
TN-1031-D-108-S	Berthold Technologies, U.S.A.	Gamma gauge molten metal	4/19/2005	Amendment	LB 300 ML, MLT
TN-1031-D-108-S	Berthold Technologies, U.S.A.	Gamma gauge molten metal	7/10/2006	Amendment	LB 300 ML, MLT
TN-1031-S-110-S	Berthold Technologies, U.S.A.	Gamma source line	9/22/2005	Amendment	LB 8910,8920
TN-1031-D-111-B	Berthold Technologies, U.S.A.	Gamma gauge sulfur analyl	8/2/2004	Amendment	LB 375
TN-1031-D-113-B	Berthold Technologies, U.S.A.	Gamma gauge low activity	2/27/2007	Amendment	LB 7501, 7501CR
TN-1031-D-114-B	Berthold Technologies, U.S.A.	Gamma gauge low act rod	2/23/2007	Amendment	LB 7502
TN-1031-D-116-B	Berthold Technologies, U.S.A.	Moisture gauge insertion	7/16/2004	Amendment	LB 7409-3
TN-1031-D-117-B	Berthold Technologies, U.S.A.	Moisture gauge	4/28/2005	New	LB 7410
TN-1031-D-117-B	Berthold Technologies, U.S.A.	Moisture gauge	4/6/2006	Amendment	LB 7410
TN-1031-D-117-B	Berthold Technologies, U.S.A.	Moisture gauge	7/10/2006	Amendment	LB 7410
TN-1031-D-118-S	Berthold Technologies, U.S.A.	Gamma gauge	8/7/2006	New	LB 300 IRL Type III
TN-237-S-101-S	Siemens Medical Solutions	Ring source	5/13/2004	Amendment	RS
TN-237-S-101-S	Siemens Medical Solutions	Ring source	5/8/2006	Amendment	RS
TN-237-S-102-S	Siemens Medical Solutions	Calibration source plane	5/13/2004	Amendment	PS
TN-237-S-102-S	Siemens Medical Solutions	Calibration source plane	5/9/2006	Amendment	PS
TN-237-S-103-S	Siemens Medical Solutions	Calibration source line	4/2/2004	Amendment	LS
TN-237-S-103-S	Siemens Medical Solutions	Calibration source line	5/9/2006	Amendment	LS
TN-237-S-104-S	Siemens Medical Solutions	Cylinder source	5/20/2004	Amendment	CS, CS-HT
TN-237-S-104-S	Siemens Medical Solutions	Cylinder source	5/22/2006	Amendment	CS, CS-HT
TN-237-S-104-S	Siemens Medical Solutions	Cylinder source	5/1/2007	Amendment	CS, CS-HT
TN-237-S-105-S	Siemens Medical Solutions	Line source	4/1/2004	Amendment	LS-Point
TN-237-S-105-S	Siemens Medical Solutions	Line source	5/10/2006	Amendment	LS-Point
TN-237-S-106-S	Siemens Medical Solutions	Point source	4/1/2004	Amendment	P-39
TN-237-S-106-S	Siemens Medical Solutions	Point source	6/30/2006	Amendment	P-39
TN-1067-D-101-S	Siemens Medical Solutions	Source Holder PET scan	3/30/2004	Amendment	ECAT EXACT
TN-1067-D-101-S	Siemens Medical Solutions	Source Holder PET scan	5/25/2006	Amendment	ECAT EXACT
TN-1067-D-102-S	Siemens Medical Solutions	Source Holder PET scan	3/30/2004	Amendment	ECAT ART
TN-1067-D-102-S	Siemens Medical Solutions	Source Holder PET scan	5/24/2006	Amendment	ECAT ART
TN-1067-D-103-S	Siemens Medical Services	Source Holder PET scan	3/30/2004	Amendment	ECAT HRRT

TN-1067-D-103-S	Siemens Medical Services	Source Holder PET scan	5/26/2006	Amendment	ECAT HRRT
TN-1067-D-104-S	Siemens Medical Solutions	Source Holder PET scan	10/19/2006	New	Inveon Twinscan
TN-8164-D-801-S	Siemens Medical Solutions	Source Holder PET System	1/4/2005	Amendment	ECAT series
TN-8164-D-801-S	Siemens Medical Solutions	Source Holder PET System	10/28/2005	Transfer to Inactive	ECAT series
TN-8164-D-801-S	Siemens Medical Solutions	Source Holder PET System	11/28/2005	Correction to Above	ECAT series
TN-0241-S-101-S	Sanders Medical Products	Nuc. Med. Cal. Source	3/28/2007	Amendment	PET-XXX/YY
TN-0241-S-102-S	Sanders Medical Products	Nuc. Med. Cal. Source	7/6/2007	Amendment	PET-Cyl.DDLL/AA
TN-0241-S-103-S	Sanders Medical Products	Nuc. Med. Cal. Source	7/6/2007	Amendment	PET-Pla.WWLL/AA
TN-1004-D-101-S	Bristol-Myers Squibb Co.	Rb-82 Generator	7/15/2004	Remove from Registry	Cardiogen-82
TN-0628-D-200-S	Amersham Corporation	Industrial Gauge	4/7/2008	Amendment	861

32. Please include information on the following questions in Section A, as they apply to the SS&D Program:

Technical Staffing and Training - Questions 2-9

2. (a) and (b) provided elsewhere (c) not applicable

3.

Name	Position	Area of Effort	FTE%
Johnny Graves	Manager	Concurrence	5
Charlie Arnott	Manager	Review and Concurrence	10
Ron Parsons	Supervisor	Review and Concurrence	10
Jerry Bacon	License Reviewer	Review	10
Sasi Krishnasarma	License Reviewer	Review	10

4. **No new personnel**
5. **None**
6. **None**
7. **None**
8. **None**
9. **No**

Technical Quality of Licensing Actions - Questions 18-23

18. **Not applicable**
19. **Not applicable**
20. **Not applicable**
21. **Not applicable**
22. **Not applicable**
23. **Not applicable**

Technical Quality of Incident and Allegation Activities - Questions 24-26

24. None in Tennessee

25. Berthold Technologies USA, Inc. of Oak Ridge, TN informed us in August 2007of a situation for one application in Texas where device shutters became stuck due to lead powder erosion from the shield. The devices were Model LB 7400-CR distributed by Berthold Technologies, USA, Inc. and are registered under TN-1031-D-101-B. Berthold amended the registration to authorize a stainless steel shutter for this extreme condition application. We informed the State of Texas of this situation

We were notified by the State of Georgia in 2006 of three occurrences of stuck shutters at one facility in Georgia that involved Berthold LB 7400 devices. An investigation by Berthold of the second of these occurrences indicated the presence of lead powder due to severe vibration due to a broken strap restraint on the device in question. The strap/restraint system was replaced. Periodic inspection was suggested and isolation of the devices from contact with the pipe was recommended. It was reported that there have been no problems with other devices with intact strap/restraint systems. The third occurrence was due to rust and corrosion of a device installed in a remote outside location since 1989. This device was replaced with a new corrosion resistant Model LB 7400-CR device.

26. No changes

III. Low-Level Radioactive Waste Disposal Program

33. Please include information on the following questions in Section A, as they apply to the Low-Level Radioactive Waste Disposal Program:

Technical Staffing and Training - Questions 2-9 **None**
Status of Materials Inspection Program - Questions 10-14 **None**
Technical Quality of Inspections - Questions 15-17 **None**
Technical Quality of Licensing Actions - Questions 18-23 **None**
Technical Quality of Incident and Allegation Activities - Questions 24-26 **None**

IV. Uranium Recovery Program

34. Please include information on the following questions in Section A, as they apply to the Uranium Recovery Program:

Technical Staffing and Training - Questions 2-9 **None**
Status of Materials Inspection Program - Questions 10-14 **None**
Technical Quality of Inspections - Questions 15-17 **None**
Technical Quality of Licensing Actions - Questions 18-23 **None**
Technical Quality of Incident and Allegation Activities - Questions 24-26 **None**

MATERIALS REQUESTED TO BE AVAILABLE FOR
THE ON-SITE PORTION OF AN IMPEP REVIEW

Please have the following information available for use by the IMPEP review team when they arrive at your office:

- □ List of open license cases, with date of original request, and dates of follow-up actions.
- □ List of licenses terminated during review period.
- □ Copy of current log or other document used to track licensing actions.
- □ List of all licensing actions completed during the review period (sorted by license reviewer, if possible).
- □ Copy of current log or other document used to track inspections.
- □ List of all inspections completed during the review period (sorted by inspector, if possible).
- □ List of inspection frequencies by license type.
- □ List of all allegations occurring during the review period. Show whether the allegation is open or closed and whether it was referred by NRC.

ALSO, PLEASE HAVE THE FOLLOWING DOCUMENTS AVAILABLE:

- □ All State regulations
- □ Statutes affecting the regulatory authority of the State program
- □ Standard license conditions
- □ Technical procedures for licensing, model licenses, review guides
- □ SS&D review procedures, guides, and standards
- □ Instrument calibration records
- □ Inspection procedures and guides
- □ Inspection report forms
- □ Documented training plan, if applicable
- □ Records of results of supervisory accompaniments of inspectors
- □ Emergency plan and communications list
- □ Procedures for investigating allegations
- □ Procedures for investigating incidents
- □ Enforcement procedures, including procedures for escalated enforcement, severity levels, civil penalties (as applicable)
- □ Job descriptions